

**OFFICE OF SURFACE MINING
RECLAMATION AND ENFORCEMENT**

Annual Evaluation Summary Report

for the

Regulatory Program

Administered by the State

of

Utah

for

Evaluation Year 2001

(October 1, 2000, through September 30, 2001)

April 2002

UTAH REGULATORY PROGRAM EVALUATION TEAM

EVALUATION YEAR 2001



Pictured left to right:

Front row: James Fulton, Office of Surface Mining (OSM), coach; Mary Ann Wright, Utah Division of Oil, Gas and Mining (DOGM), coach; Pamela Grubaugh-Littig, DOGM, team co-leader; and Susan White, DOGM.

Back row: Daron Haddock, DOGM; Joseph Wilcox, OSM; Priscilla Burton, DOGM; Dennis Winterringer, OSM, team co-leader; Howard Strand, OSM; Gregg Galecki, DOGM; and Peter Hess, DOGM.

Not pictured: Henry Austin, OSM; Paul Baker, DOGM; Robert Postle, OSM; and Ronald Sassaman, OSM.

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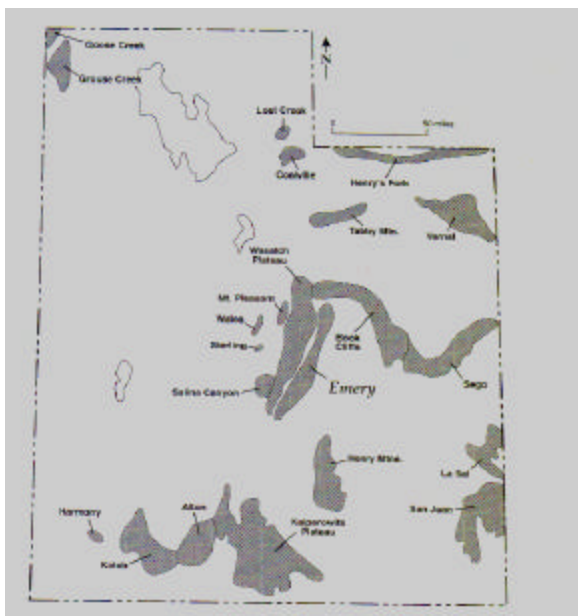
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I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the administration of and provide Federal funding for State regulatory programs that have been approved by OSM as meeting the minimum standards of SMCRA. This report contains summary information regarding the Utah program and the effectiveness of the Utah program in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the period of October 1, 2000, through September 30, 2001. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the OSM Denver Field Division office.

II. Overview of the Utah Coal Mining Industry

Coal is found beneath approximately 18 percent of the state of Utah, but only 4 percent is considered mineable at this time. The demonstrated coal reserve base is about 6.4 billion tons, which is 1.3 percent of the national reserve base. Most of Utah's coal resources are held by the State and Federal governments and Indian tribes.



Utah coal fields are shown on the figure to the left (Utah Geological Survey, ASurvey Notes@, September 1998). In 2001, only the Wasatch Plateau and Book Cliffs coal fields were being actively mined. In 2000, these coal fields respectively accounted for 85 and 15 percent of the total production (Utah Department of Natural Resources, Office of Energy and Resource Planning, "2000 Annual Review and Forecast of Utah Coal Production and Distribution@, July 2001).

Most of the coal is bituminous and is of Cretaceous age. The Btu value is high compared to most other western States. Sulfur content ranges from medium to low in the more important coal fields.

Coal production steadily increased from the early 1970's and peaked in 1996 at 28.9 million tons. Production in 2000 was slightly less at 28.2 million tons (table 1). The majority of the coal production is produced by underground mining operations, which mostly mine seams exceeding 8 feet in thickness.

As of September 30, 2001, Utah had 27 permitted operations that had disturbed 2,341 acres (table 2). Utah considered each of these operations to be an inspectable unit. All of these operations were active

or temporarily inactive; none were inactive or abandoned (table 2). Of the 27 operations, 11 were underground mines that use the longwall mining method, 11 were underground mines that use the room-and-pillar mining method, 1 was a surface mining operation that extracts coal from an underground mine refuse pile, and 4 were coal preparation plants/loadout facilities.

Utah's coal mining industry has a direct, significant impact on the local economies where mining occurs and an indirect impact on the Wasatch Front and other areas both inside and outside Utah. In 2000, the industry employed 1,672 miners (Utah Department of Natural Resources, Office of Energy and Resource Planning, A2000 Annual Review and Forecast of Utah Coal Production and Distribution, July 2001). In 2000 in Carbon, Emery, and Sevier Counties where coal mining currently occurs, mining, including coal mining, respectively employed 9.3, 22.1, and 4.6 percent of the workforce. In Emery County, a coal mining company was the largest employer. In Carbon County and Sevier County, a coal mining company was respectively one the 7 and 12 largest employers (Governor's Office of Planning and Budget, October 2001; <http://www.governor.state.ut.us/dea/Profiles/profiles.html>).

The climate of the Wasatch Plateau and Book Cliffs coal fields is characterized by hot, dry summers and cold, relatively moist winters. Normal precipitation varies from 6 inches in the lower valleys to more than 40 inches on some high plateaus. The growing season ranges from 5 months in some valleys to only 2 1/2 months in mountainous regions.

III. Overview of the Public Participation Opportunities in the Evaluation Process and Utah Program

A. Evaluation Process

On March 28, 2001, the OSM and DOGM co-leaders of the OSM/Utah evaluation team sent a letter to 66 persons that work for various Federal, State, and county agencies; coal companies; and other organizations. Enclosed with the letter was the report on the evaluations of the Utah coal regulatory program that the team conducted during evaluation year 2000 (October 1, 1999 through September 30, 2000). In the letter, the team co-leaders identified the topics that the team planned to review in evaluation year 2001 (October 1, 2000, through September 30, 2001). They requested suggestions in writing or by telephone for any other review topics, for changes in the evaluation process described in the 2000 report, and for improvements in future reports.

On the DOGM Internet site, the team also made a copy of the 2000 report available for review and asked for suggestions on the same things. It provided an e-mail link to each of the team co-leaders.

The team received one comment on the "Overview of the Utah Coal Mining Industry" section of the 2000 report. The commenter stated that coal mining was important not only to local economies but also to the Wasatch Front and other areas outside Utah. In response to this comment, the team revised this 2001 report.

B. Utah Program

On September 4, 2001, the Southern Utah Wilderness Society appealed to the Utah Board of Oil, Gas and Mining DOGM's July 27, 2001, decision to approve the Utah American Energy, Inc. permit application for the Lila Canyon Mine.

IV. Accomplishments, Issues, and Innovations

A. Accomplishments

Since 1981 when OSM approved the Utah permanent regulatory program, DOGM has forfeited reclamation performance bonds for five mines. At the beginning of evaluation year 2001, DOGM completed reclamation on the one remaining mine, the Blazon No. 1 Mine (table 6).

On August 2, 2001, DOGM held a coal conference in Price, Utah that was attended by over 100 persons. Attendees included State and Federal employees, mining companies, and other interested parties. DOGM coordinated a field trip on the following day to view a Utah Division of Wildlife Resources stream restoration project on the White River near Soldier Summit.

To facilitate State and Federal agency coordination on coal mining permits, DOGM participates in monthly telephone conferences and quarterly meetings with OSM, the Bureau of Land Management, U.S. Forest Service, and Utah State Institutional Trust Lands Administration. DOGM coordination with other State and Federal agencies on coal mining permits is important because most land in Carbon, Emery, and Sevier Counties where coal mining occurs is not privately owned. In these three counties, the Federal government owns 47.3, 79.8, and 77 percent of the land; the State of Utah owns 13.1, 11.9, and 3.7 percent (Governor's Office of Planning and Budget, October 2001; <http://www.governor.state.ut.us/dea/Profiles/profiles.html>).

DOGM regularly attends and participates in monthly meetings of the Emery County Public Lands Council in Castle Dale, Utah, the Emery County seat. The mission of the Emery County Public Lands Council is to "work in partnership with federal and state agencies in fashioning management decisions and policies affecting lands within Emery County."

B. Issues

On October 1, 1999, the Utah Board of Oil, Gas and Mining adopted and on April 24, 2001, OSM approved through the State program amendment process a revised rule concerning the inspection frequency for abandoned sites. The revised rule allowed DOGM to inspect abandoned sites, which includes bond forfeiture sites, "on a set frequency commensurate with the public health and safety and environmental considerations present at each specific site" but in no case less than one complete inspection per calendar year. To set the inspection frequency at this minimum one-time-per-year level, DOGM would need to conduct a complete inspection, solicit public comment through a newspaper notice, and prepare a written finding justifying the new inspection frequency. During evaluation year 2001, DOGM visited one or more of the five bond forfeiture sites, but it only conducted a total of one official complete inspection on them. DOGM staff was not aware of the new rule and its procedures for

reducing the inspection frequency at bond forfeiture sites.

At the year-end meeting of the team, team coaches, and Director of DOGM, the meeting participants agreed that there needed to be a greater awareness by DOGM and OSM staff of the new statutory provisions and rules adopted by Utah and approved by OSM. Once each calendar quarter during a team meeting, the DOGM person responsible for statute and rule development and the OSM person responsible for State program amendment review and approval will brief the team on the requirements of newly-revised statutes and rules.

DOGM has been very diligent in revising its regulatory program in response to changes in SMCRA and the Federal regulations, but it needs to propose an updated schedule for submission of an amendment addressing the valid existing rights issues that OSM sent to DOGM by 30 CFR Part 732 letter dated September 29, 2000.

After review of DOGM's and the Utah Department of Environmental Quality's (DEQ) implementation of the September 1, 1999, memorandum of understanding between the agencies, DOGM recommended that: (1) DOGM and DEQ should strive to promptly notify each other in emergency spill and emergency water discharge situations, (2) DOGM inspectors should encourage each operator to prepare a telephone list of DOGM and DEQ persons that the operator will call when emergencies occur within the overlapping jurisdictions of the two agencies, and (3) for the reclamation of noncoal waste disposal sites, especially asphalt burial, DOGM and DEQ should clarify to the mine operators that the solid and hazardous provisions of DEQ's "permit by rule" may apply but the operators must apply to DEQ and be granted permit-by-rule status.

C. Innovations

For the sixth consecutive year, persons from OSM and DOGM continued to work as a team to evaluate and assist DOGM in the administration, implementation, and maintenance of the approved Utah regulatory program. During the evaluation year, the team consisted of 14 program and permitting specialists, scientists, and managers from OSM and DOGM.

V. Success in Achieving the Purposes of SMCRA As Determined By Measuring and Reporting End Results

To further the concept of reporting end results and measuring Utah's success in achieving the purposes of SMCRA, OSM and DOGM conducted evaluations and inspections whose purpose was to measure the number and extent of offsite impacts, the percentage of inspectable units free of offsite impacts, the number of acres that have been mined and reclaimed and meet the bond release requirements for the various phases of reclamation, and DOGM's effectiveness of customer service. Reports, which provide additional details on how OSM and DOGM conducted the evaluations and inspections and took the measurements, are available in the OSM Denver Field Division office.

A. Offsite Impacts

An “offsite impact” is anything resulting from a surface coal mining and reclamation activity or operation that causes a negative effect on resources (people, land, water, structures) outside the area authorized by the permit for conducting mining and reclamation activities.

Table 4 shows the number and type of offsite impacts that OSM and DOGM documented as having occurred during the evaluation year.

1. Sites Where DOGM Had Not Forfeited Reclamation Performance Bonds

OSM and DOGM assessed whether offsite impacts had occurred on each of the 28 permitted operations that existed at some time during the evaluation period and for which DOGM had not forfeited reclamation performance bonds. (By the end of the evaluation period, DOGM had fully released the bond for one of these operations.) OSM and DOGM did so through the following 302 on-the-ground observations: 4 OSM and DOGM joint, complete inspections; 113 DOGM complete inspections; and 185 DOGM partial inspections.

OSM and DOGM found two incidents where mines caused hydrology-related offsite impacts: a minor impact to a land resource and a minor impact to a water resource (table 4, top half). Ninety-three percent of the permitted operations (26 of 28) were free of offsite impacts.

This is a lower percentage than the 96 percent OSM and DOGM found in evaluation years 1999 and 2000 (both 28 of 29 operations) but a higher percentage than the 82 and 87 OSM and DOGM found in evaluation years 1998 and 1997 (23 of 28, and 26 of 30 operations).

The high percentages are an indication that Utah is effective at nonforfeiture minesites in preventing offsite impacts to water, people, land, and man-made structures.

2. Sites Where DOGM Had Forfeited Reclamation Performance Bonds

Since 1981 when OSM approved the Utah permanent regulatory program, DOGM has forfeited reclamation performance bonds for five mines. In previous evaluation years, DOGM completed bond forfeiture reclamation on four of the mines (table 6). A few days into evaluation year 2001 DOGM completed reclamation on the one remaining mine, the Blazon No. 1 Mine.

Because reclamation had been completed on all five sites and because three of the sites that had been reclaimed as of the time of the team’s minesite reviews in evaluation year 1999 were erosionally stable at that time, the team did not revisit the minesites in evaluation years 2000 and 2001. DOGM conducted a complete inspection on one of the minesites in evaluation year 2001 and did not find any offsite impacts.

Because OSM and DOGM did not observe any offsite impacts on the five bond forfeiture sites, table 4 (bottom half) shows that 100 percent of these sites were free of offsite impacts. In comparison, OSM

and DOGM found 100 and 80 percent (4 of 5 operations) of the bond forfeiture sites free of offsite impacts in evaluation years 2000 and 1999.

The high percentages are an indication that Utah is effective at bond forfeiture minesites in preventing offsite impacts to water, people, land, and man-made structures

OSM and DOGM do not anticipate that offsite impacts from bond forfeiture sites will become an issue of concern in the foreseeable future. There are no ongoing administrative proceedings to forfeit bonds for additional mines. All five of the bond forfeiture minesites have now been entirely reclaimed. Four of the five minesites have minimal surface disturbances (a total of 33.6 acres, an average of 8.4 acres per minesite), which reduces the possibilities for future offsite impacts there.

B. Reclamation Success

1. Sites Where DOGM Had Not Forfeited Reclamation Performance Bonds

For the operations where DOGM had not forfeited reclamation performance bonds, OSM and DOGM used as the measure of reclamation success the disturbed acreage that had received bond release. Historically, the amount of bond release acreage in Utah has been very low due to the following two factors.

- Most of the permitted operations are underground mines (table 2). Underground mining operations are long-lived, and the surface disturbances for them are relatively small and remain active during the entire life of the mining operations because of their continued use as surface facilities.
- The bond liability period is a minimum of 10 years.

Table 5 shows the acreage on active or inactive permits where DOGM partially released (phases I and II) or totally released (phase III) bonds during the evaluation year. For the 2,300 acres of total disturbance that had not yet received final (phase III) bond release at the beginning of the evaluation year, DOGM granted a phase I bond release of 29.9 acres and a phase III bond release of 10 acres. It did not grant any phase II bond releases.

In an effort to get a better understanding of how much acreage is reclaimed and may be eligible for bond release, OSM and DOGM compiled mine reclamation status information for all mines and facilities (coal loadouts and preparation plants) that DOGM has permitted under the Utah permanent regulatory program in the 20 years since OSM approved the program. Table 6 shows the detailed reclamation status of the active and inactive operations, the operations for which DOGM forfeited the reclamation performance bonds, and the operations for which DOGM released all phase III bonds. After reviewing the data in table 6, OSM and DOGM conclude that there is little disturbed acreage that has received reclamation work and that may be eligible for phase I, II, or III bond release.

In addition to the above analysis of bond release acreage, OSM and DOGM also assessed reclamation success in evaluations of shrub rooting characteristics on a coal refuse pile, plant succession on reclaimed minesites, and highwall reclamation. For a discussion of these evaluations, see following section VII.

2. Sites Where DOGM Had Forfeited Reclamation Performance Bonds

DOGM has completed initial reclamation on all five bond forfeiture sites. Reclamation may be adequate on some of the sites for DOGM to terminate its jurisdiction on them, but it has not yet developed procedures and policy to do so.

C. Customer Service

DOGM conducted a self-evaluation of its interactions with the Utah Department of Environmental Quality (DEQ) in implementing DOGM's and DEQ's September 1, 1999, memorandum of understanding for mining operations.

In response to OSM concerns that States might not be timely in revising their regulatory programs to be no less stringent than the provisions of SMCRA and no less effective than the Federal regulations, OSM in October 2001 compiled a list of statute and rule revisions that Utah needed to make.

These evaluations concerned procedural aspects of DOGM's program (i.e., not on-the-ground results relating to offsite impacts and reclamation success). In a broad sense, these evaluations concerned DOGM's effectiveness in serving its customers. Effective interaction with DEQ in implementing the DOGM and DEQ environmental protection programs and DOGM timeliness in revising its State program statutes and regulations would generally be responsive to the needs of landowners, concerned citizens, and coal mining companies.

For a discussion of these evaluations, see following section VII.

VI. OSM Assistance

For the 1-year grant period starting July 1, 2001, OSM funded the Utah program in the amount of \$1.76 million (table 9). Through a Federal lands cooperative agreement, OSM reimburses DOGM for permitting, inspection, and other activities (table 8) that it performs for mines on Federal lands. Because most of the mines in Utah occur on Federal lands, the percentage of total program costs for which OSM provided funding was high (87 percent, table 9).

In evaluation years 1997, 1998, and 1999, OSM supported the development of an electronic permitting system by providing \$28,151 to DOGM for computer hardware and software. In evaluation year 2000, OSM provided \$6,061 for additional hardware for the system: \$3,873 for a Windows NT workstation for the management of digital data and \$2,188 for two digital cameras for field documentation of inspections and bond releases. In evaluation year 2001, OSM provided \$6343 for

the purchase of a high speed color scanner for permit maps and charts.

Under its Technical Training, Technical Information Processing System, and Technology Transfer Programs, OSM offers free of charge a variety of courses, workshops, and forums to State and Tribal employees. As described below, 18 DOGM employees participated in these activities during the evaluation year.

DOGM employees attended the following Technical Training Program courses and workshops: Effective Writing Workshop, Enforcement Procedures, Instructor Training Course, Permit Findings Workshop, Permitting Hydrology, Surface and Groundwater Hydrology, and Underground Mining Technology. DOGM employees assisted in the teaching of the following Technical Training Program workshops: Administrative and Legal Aspects of Bonding and Permit Findings.

DOGM employees attended the following Technical Information Processing System courses: AquaChem, AutoCAD Map, CAD Applications, and Statgraphics. A DOGM employee assisted in the development and teaching of the AquaChem course.

A DOGM employee attended and made a presentation entitled “Mitigation for Culverting a Stream Used by Colorado River Cutthroat Trout” at OSM’s interactive forum on “Approaching Bond Release: Wildlife Habitat Construction and Wildlife Use of Reclaimed Lands in Arid and Semi-Arid West,” which was held August 27 through 31, 2001, in Gillette, Wyoming.

OSM and DOGM jointly funded a research project that was conducted by a DOGM hydrologist and a consultant. Their research concerned how to determine whether or not a spring’s flow is being affected by natural climate patterns or is being affected by mining activities. The researchers documented their findings in a professional paper entitled “Correlation Between Natural Spring Flow and the Palmer Hydrologic Drought Index” and presented them at the 18th National Meeting of the American Society for Surface Mining Reclamation, which was held June 3 through 7, 2001, in Albuquerque, New Mexico.

OSM’s Bonding Specialist assisted DOGM during its preparation of a State program amendment concerning surety bonds.

In response to 10 requests by DOGM staff, OSM’s technical librarian provided various information, including copies of 166 journal article reprints, 4 publications, and 2 CD-ROM’s.

VII. Evaluation Topic Reviews

Each year OSM and DOGM evaluate topics to determine whether DOGM is effective in preventing offsite impacts, ensuring reclamation success, and serving its customers. Following are discussions of the evaluations that they conducted in the time period from October 1, 2000, through September 30, 2001. Written reports for these topics are available for review in the OSM Denver Field Division office.

A. Rooting Characteristics of Shrubs Established on a Coal Refuse Pile

Underground coal mines create coal refuse piles that are composed of underground development waste and coal processing waste. Underground development waste is a waste-rock mixture of coal and rock that is excavated and disposed of from underground mine workings. Coal processing waste is earth material that is separated and removed from coal during cleaning and preparation of the coal for market. Because most of Utah's operations are underground mines that have coal refuse piles, their reclamation is important to the success of the Utah program.

While the coal refuse in Utah is generally considered nontoxic, it was unknown whether it provided a suitable root growth medium. To determine whether coal refuse is a suitable plant growth medium, OSM and DOGM during evaluation year 2001 evaluated shrub rooting depths on a reclaimed coal refuse pile and on an adjacent revegetated subsoil stockpile.

The coal refuse pile had varying depths of topsoil and subsoil placed on its surface during reclamation. Vegetation had been planted on both the coal refuse pile and subsoil stockpile as long ago as 17 years ago, so shrub roots were well-developed.

The coal mining operator provided a backhoe to excavate five pits in the refuse pile and five pits in the subsoil stockpile. Pits were dug adjacent to established shrubs so that rooting characteristics could be studied.

Shrubs became well established on both the coal refuse pile and subsoil stockpile, but roots appeared to be better developed in the subsoil stockpile, including the development of well-defined taproots. In the refuse pile, roots grew straight downward until they came to the interface of the soil and refuse where they moved laterally before finally entering the refuse material. Based upon its field observations and review of scientific literature, OSM and DOGM concluded that the growth of roots into refuse was atypical compared to growth of roots into an adjacent subsoil stockpile of the same age.

Medium and coarse roots grew 4 to 5 feet deep in the subsoil stockpile, whereas medium and coarse roots were limited to the top 2 feet of the soil-covered refuse. Above 2 feet, the refuse would have been subject to freeze and thaw cycles that would reduce the bulk density and decrease compaction, creating a more conducive environment for medium and coarse root growth. To a lesser degree the ability of very fine roots to penetrate the refuse was also limited.

Compaction and moisture may have played a role in the differences in root growth on the refuse pile and subsoil stockpile. Compaction of refuse piles is required under Mine Safety and Health Administration regulations at 30 CFR 77.215 as a strategy to avoid combustion. As a consequence, compaction of the refuse material was much higher than the compaction of the soil in the subsoil stockpile. Also, the subsoil stockpile was located in a topographic position where precipitation run-on is likely, thereby enhancing water availability for deeper root growth.

It is important to note that roots eventually did penetrate the refuse material and the woody plant species

had no noticeable qualitative differences in the above-ground vegetative growth. The lack of taproot penetration into the refuse did not affect the ability of the soil-covered refuse to support a plant community that met the revegetation success criteria for cover and shrub density.

However, as added insurance for revegetation success, OSM and DOGM recommend that different reclamation techniques be used in the future on coal refuse piles. Root growth into soil-covered refuse could be enhanced by ripping of the surface prior to soil cover placement. The recommended depth of ripping is inversely related to the depth of cover, so that a less compacted root zone of 4 feet is achieved. If the refuse is combustible, then the recommended soil cover depth should be 4 feet to allow for a rooting zone, while protecting against combustion. Working the soil cover into the refuse surface to avoid an abrupt boundary layer is also recommended.

B. Plant Succession and Native Plant Invasion on Reclaimed Mines

In evaluation year 2001, OSM and DOGM began an evaluation of plant succession and native plant invasion on reclaimed mines.

Most reclaimed mines in Utah are meeting vegetation cover, productivity, and diversity success standards, but it is not known, other than through casual observations, what successional changes occur over time in communities of reclaimed vegetation. The early focus of revegetation was to control erosion, so aggressive plant species were used in the revegetation seed mixture. It was thought that over time the surrounding native species would invade and eventually replace the seeded species.

Because most Utah operations are underground mines that have relatively small surface disturbances, reclaimed areas are small compared to those in many other States. They tend to have large border length/surface area ratios that should favor native species invasion.

OSM and DOGM are conducting this evaluation to determine to what extent vegetation composition changes over time and to determine whether species native to the surrounding vegetative community are invading the reclaimed sites. Depending upon the results of the evaluation, OSM and DOGM could make recommendations for changes in seeding rates.

OSM and DOGM will continue this study in evaluation year 2002.

C. Highwall Elimination and Retention As a Part of Approximate Original Contour Restoration

OSM and DOGM conducted a multiyear review of highwall elimination and retention as a part of approximate original contour restoration.

During evaluation year 1997, DOGM prepared a detailed inventory of the 97 highwalls in the State. The inventory serves as a useful compendium of information on reclamation requirements and plans for each of the highwalls. In using the highwalls inventory, OSM and DOGM identified deficiencies in

highwall reclamation plans in one-fifth of the mine permits (seven permits).

In evaluation year 1998, DOGM developed a prioritized schedule for the permittees to submit proposed permit revisions to correct the deficiencies and for DOGM to review the proposals. The permit revision due dates ranged from August 1998 to February 2000. By letters dated March 3 and 5, 1998, DOGM notified each of the permittees of the permit revision submission deadlines.

In evaluation years 1999 and 2000, OSM and DOGM (1) tracked the permit revision submission dates and DOGM permit revisions review dates to determine whether the schedule was being adhered to and (2) reviewed the revised permits to verify that the permit deficiencies were being resolved in accordance with the requirements of the Utah regulatory program.

By the end of evaluation year 2001, DOGM had approved all of the revised permits. DOGM improved its technical analyses that were the bases for approving the highwall reclamation plans. DOGM should continue to emphasize the writing of analyses that address all highwall reclamation requirements of the Utah regulatory program and that adequately support the decisions to approve the highwall reclamation plans.

D. Implementation of Utah Interagency Agreement

As the result of their review of citizen complaints during evaluation year 1996, OSM and DOGM concluded that communication on water quality problems at coal mines could be improved between DOGM and the Utah Department of Environmental Quality (DEQ), the Utah Pollutant Discharge Elimination System permitting authority.

In evaluation year 1997, OSM and DOGM recommended that the October 16, 1990, memorandum of understanding (MOU) between DOGM and DEQ be revised to include provisions for DEQ to notify DOGM of violations of Utah Pollutant Discharge Elimination System permits and of the water quality standards at 40 CFR Part 434.

During evaluation year 1998, DOGM transmitted proposed MOU revisions to DEQ.

On September 1, 1999, the directors of DOGM and DEQ signed a revised MOU. In the revised MOU, the agencies agreed to coordinate more closely in enforcing water quality standards on coal mines and to cooperate on other matters where they both have jurisdiction.

In evaluation year 2001, DOGM reviewed the interactions that had occurred between DOGM and DEQ since the signing of the MOU to determine whether the MOU provisions were being implemented.

Through the use of a questionnaire and interviews with DEQ employees, DOGM concluded that DOGM and DEQ are generally communicating with each other as intended by the MOU. Recommendations for improvements in the implementation of the overlapping parts of the DOGM and DEQ programs included:

- The need for better communication between DEQ and DOGM in emergency spill and emergency water discharge situations,
- Preparation of a telephone “call down” list by each coal mining operator to ensure that the operator notifies both DEQ and DOGM about emergencies that concern both agencies, and
- For the reclamation of noncoal waste disposal sites, especially asphalt burial, clarify to the mine operators that the solid and hazardous provisions of DEQ’s “permit by rule” may apply but that they must apply to DEQ and be granted permit-by-rule status.

E. Outstanding Regulatory Program Amendments

On November 14, 2000, the West Virginia Highlands Conservancy filed a lawsuit alleging that OSM had failed to require the State of West Virginia to maintain and enforce its regulatory program as Congress intended. Of particular concern was the State’s alleged failure to submit amendments required under Subchapter T of the 30 CFR regulations and to respond to letters OSM sent to the State under 30 CFR Part 732 in which it described provisions of the State’s program that need to be revised.

In response to the concern that other States might not be timely in revising their regulatory programs to be no less stringent than the provisions of SMCRA and no less effective than the Federal regulations, OSM compiled a list of statute and rule revisions that DOGM needs to make.

As of the end of evaluation year 2001, DOGM had not yet revised its program to incorporate all of the counterparts to the SMCRA and Federal regulation changes that OSM notified it of in the following 30 CFR Part 732 letters: ownership and control, January 13, 1997; miscellaneous topics, June 19, 1997; and valid existing rights, September 19, 2000.

Subsequent to the January 13, 1997, ownership and control letter, OSM on December 19, 2000, promulgated new ownership and control regulations. Industry filed a lawsuit contesting these regulations. Because of the lawsuit, OSM postponed sending 30 CFR Part 732 letters to the States that would require them to adopt counterparts to the December 19, 2000, regulations. OSM does not expect DOGM to amend its ownership and control rules until the outcome of the lawsuit is known and OSM sends another 30 CFR Part 732 letter to DOGM.

With respect to the June 19, 1997, letter addressing miscellaneous topics, DOGM has revised its statutes and regulations for all topics except those concerning the Small Operator Assistance Program. In early 2002, the Utah legislature is scheduled to consider statute changes. Following enactment of the statutes, DOGM would propose rules to OSM.

DOGM projected that by early September 2000 it would adopt a formal rule to address the issues in the September 19, 2000, valid existing rights 30 CFR Part 732 letter, but it did not meet that schedule.

DOGM needs to propose to OSM a new schedule for adopting a formal valid existing rights rule.

OSM concludes that Utah has been very diligent in revising its regulatory program in response to OSM's 30 CFR Part 732 letters. With only a few exceptions (ownership and control, Small Operator Assistance Program, and valid existing rights), Utah's regulatory program is no less stringent than SMCRA and no less effective than the Federal regulations.

Appendix. Tabular Summary of Core Data Characterizing the Utah Program

The following tables present data pertinent to mining operations and State and Federal regulatory activities within Utah. They also summarize Utah staffing and OSM funding. Unless otherwise specified, the reporting period for the data contained in all tables is October 1, 2000, through September 30, 2001.

TABLE 1

COAL PRODUCTION (Millions of short tons)			
Annual Evaluation Period	Surface mines	Underground mines	Total
Coal production ^A for entire State:			
1998	0.540	26.950	27.490
1999	0.490	26.080	26.570
2000	0.582	27.660	28.242
Total	1.612	80.690	82.302
<p>A Coal production as reported in this table is the gross tonnage which includes coal that is sold, used or transferred as reported to OSM by each mining company on form OSM-1 line 8(a). Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by States or other sources due to varying methods of determining and reporting coal production.</p>			

TABLE 2

INSPECTABLE UNITS												
As of September 30, 2001												
Coal mines and related facilities	Number and status of permits								Insp. Units ^D	Disturbed acreage ^A (hundreds of acres)		
	Active or temporarily inactive		Inactive		Abandoned		Totals					
	IP	PP	Phase II bond release									
			IP	PP	IP	PP	IP	PP		IP	PP	Total
STATE AND PRIVATE LANDS ^B REGULATORY AUTHORITY: UTAH												
Surface mines	1						0	1	1	2.02		2.02
Underground mines	3						0	3	3	0.61		0.61
Other facilities	2						0	2	2	5.14		5.14
Subtotals	0	6	0	0	0	0	0	6	6	0	7.77	7.77
FEDERAL LANDS ^C REGULATORY AUTHORITY: UTAH												
Surface mines							0	0				0
Underground mines	19						0	19	19	14.786		14.786
Other facilities	2						0	2	2	0.85		0.85
Subtotals	0	21	0	0	0	0	0	21	21	0	15.636	15.636
ALL LANDS												
Surface mines	1						0	1	1	2.02		2.02
Underground mines	22						0	22	22	15.396		15.396
Other facilities	4						0	4	4	5.99		5.99
Totals	0	27	0	0	0	0	0	27	27	0	23.406	23.406
Average number of permits per inspectable unit (excluding exploration sites)									<u>1</u>			
Average number of acres per inspectable unit (excluding exploration sites)									<u>0.867</u>			
Number of exploration permits on State and private lands: <u>2</u>									On Federal lands ^D : <u>0</u>			
Number of exploration notices on State and private lands: <u>0</u>									On Federal lands ^D : <u>8</u>			
IP: Initial regulatory program sites												
PP: Permanent regulatory program sites												
^A Almost all of the operations are underground mines. This table shows disturbed, rather than permitted acreage, because disturbed acreage is a more meaningful measure for underground mines. The permitted acreage was 163,775.												
^B Mines or facilities where entire disturbed area occurs on State and/or private lands.												
^C Mines or facilities where at least a portion of the disturbed area occurs on Federal lands.												
^D Includes only exploration activities regulated by Utah pursuant to the Federal lands cooperative agreement with OSM. Does not include exploration activities regulated by the Bureau of Land Management.												

TABLE 3

STATE PERMITTING ACTIVITY As of September 30, 2001												
Type of Application	Surface mines			Underground mines			Other facilities			Totals		
	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres ^A	App. Rec.	Issued	Acres	App. Rec.	Issued	Acres
New Permits										0	0	0
Renewals				7	5	421				7	5	421
Amendments ^B				2	4	48				2	4	48
Transfers, sales and assignments of permit rights										0	0	
Small operator assistance										0	0	
Exploration permits				2	2					2	2	
Exploration notices ^C					8						8	
Revisions (exclusive of incidental boundary revisions)					52			7			59	
Incidental boundary revisions											0	0
Totals	0	0	0	11	71	469	0	7	0	11	78	469

Number of midterm permit reviews completed that are not reported as revisions.

5

^A Includes only the number of acres of proposed surface disturbance.

^B Under the Utah program, "significant permit revisions" are made when there is an increase in the approved permit size of the surface or subsurface disturbed area in the amount of 15 percent or greater. "Amendments shown in this table are the "significant permit revisions" that Utah processed.

^C State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

TABLE 4

OFFSITE IMPACTS ON SITES WHERE BONDS HAVE <u>NOT</u> BEEN FORFEITED														
DEGREE OF IMPACT		RESOURCES AFFECTED												
		People			Land			Water			Structures			Total
		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major	
TYPE OF IMPACT	Blasting													0
	Land Stability													0
	Hydrology				1			1						2
	Encroachment													0
	Other													0
	Total	0	0	0	1	0	0	1	0	0	0	0	0	2
Total number of inspectable units: 28														
Inspectable units free of offsite impacts: 26														
OFFSITE IMPACTS ON SITES WHERE BONDS HAVE BEEN FORFEITED														
DEGREE OF IMPACT		RESOURCES AFFECTED												
		People			Land			Water			Structures			Total
		minor	moderate	major	minor	moderate	major	minor	moderate	major	minor	moderate	major	
TYPE OF IMPACT	Blasting													0
	Land Stability													0
	Hydrology													0
	Encroachment													0
	Other													0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of inspectable units: 5														
Inspectable units free of offsite impacts: 5														

TABLE 5

ANNUAL STATE MINING AND RECLAMATION RESULTS		
Bond release phase	Applicable performance standard	Acreage released during this evaluation period
Phase I	<ul style="list-style-type: none"> - Approximate original contour restored - Topsoil or approved alternative replaced 	29.90 ^A
Phase II	<ul style="list-style-type: none"> - Surface stability - Establishment of vegetation 	0.00 ^A
Phase III	<ul style="list-style-type: none"> - Post-mining land use/productivity restored - Successful permanent vegetation - Groundwater recharge, quality and quantity restored - Surface water quality and quantity restored 	10.00 ^A
	Bonded Acreage Status	Acres
Total number of bonded acres at end of last evaluation year (September 30, 2000) ^B		2,300.00
Total number of bonded acres at end of this evaluation year (September 30, 2001) ^B		2,340.78
Number of acres at end of this evaluation period that are bonded for remining		0.00
Number of acres where bond was forfeited during this evaluation year		0.00
<p>^A Throughout the history of the Utah permanent regulatory program, the acreage receiving bond release is low owing to (1) most of the operations being long-lived underground mines with relatively small surface disturbances that remain active during the entire life of the mining operations and (2) a 10-year minimum bond liability period.</p> <p>^B Bonded acreage in this category is disturbed acreage that has not received phase III bond release. (Utah maintains jurisdiction).</p>		

TABLE 6

RECLAMATION STATUS OF ALL AREAS DISTURBED UNDER THE UTAH PERMANENT REGULATORY PROGRAM ^A																		
Acres Disturbed As of September 30, 2001																		
Permittee, mine name, and permit number	Mine type		Disturbed area		Long-term mining or reclamation facilities ^B	Active mining areas (pits and areas in advance of the pits stripped of topsoil) and areas not yet backfilled and graded	Areas backfilled and graded		Areas where Utah has released phase I bond		Areas soiled and seeded / planted		Areas where Utah has released phase II bond		Areas final seeded / planted for 10 years		Areas where Utah has released phase III bond	
	Surface	Under-ground	EY 2001	Total (all years)			EY 2001	Total (all years)	EY 2001	Total (all years)	EY 2001	Total (all years)	EY 2001	Total (all years)	EY 2001	Total (all years)	EY 2001	Total (all years)
Active, temporarily inactive, inactive, and abandoned sites.																		
Lodestar Energy, Inc. White Oak #1 and #2/ Loadout C/007/001	(loadout)	X		140.2	140.2													
Castle Gate Holding Company Castle Gate Mine C/007/004		X		63		14.9		48.1	29.9	48.1		48.1						
Canyon Fuel Company, LLC Skyline Mine C/007/005		X		74.31	74.31													
Plateau Mining Corporation Star Point Mine C/007/006		X		220	216		4	4										
Hiawatha Coal Company Hiawatha Mine C/007/011		X		290	290													
Nevada Electric Investment Company Wellington Preparation Plant C/007/012	(preparation plant)			392	392													
Utah American Energy, Inc. Horse Canyon Mine C/007/013		X		87 ^c	25.35			61.65		61.65		61.65						
Mountain Coal Company Gordon Creek #2, #7, and #8 C/007/016		X		17.58				17.58										
Canyon Fuel Company, LLC Soldier Canyon Mine C/007/018		X		21.82	21.82													
Andalex Resources, Inc. Centennial Mine C/007/019		X		35.27	35.27													
Lodestar Energy, Inc. Horizon Mine C/007/020		X		9.5	9.5													
Savage Industries, Inc. Savage Coal Terminal C/007/022	(preparation plant and loadout)			122	122													
Andalex Resources, Inc.	(preparation																	

Wildcat Loadout C/007/033	plant and loadout)			63.7	63.7												
Canyon Fuel Company, LLC Banning Loadout C/007/034	(prepara- tion plant and loadout)																
Sunnyside Cogeneration Associates (SCA) SCA C/007/035	X			202	196.5			5.5		5.5							
Plateau Mining Corporation Willow Creek Mine C/007/038		X		161.55	161.55												
Canyon Fuel Company, LLC Dugout Mine C/007/039		X		22.65	22.65												
West Ridge Resources, Inc. West Ridge Mine C/007/041		X		29	29												
Consolidation Coal Company Hidden Valley Mine C/015/0007		X		6.7				6.7		6.7		6.7					
PacifiCorp Trail Mountain Mine C/015/009		X		24.78	24.78												
Consolidation Coal Company Emery Deep Mine C/015/015		X		40 _D	40 _D												
PacifiCorp Des-Bee-Dove Mine C/015/017		X		23.88 _E	23.88												
PacifiCorp Deer Creek Mine C/015/018		X		95.8	95.8												
PacifiCorp Cottonwood/Wilberg Mine C/015/019		X		101.74	101.74												0.01 _F
Co-Op Mining Company Bear Canyon Mine C/015/025		X	12.64	36.64	36.64												
Genwal Resources, Inc. Crandall Canyon C/015/032		X		10.7	10.7												
Canyon Fuel Company, LLC SUFCO Mine C/041/002		X		27.36 _G	27.36												
Subtotal	6	22	12.64	2340.78	2182.35	14.9	4	143.53	29.9	121.95		116.45					0.01
Sites receiving full release of reclamation performance bonds. ^H																	
Blackhawk Coal Company Willow Creek Mine C/007/002		X		4.2													4.2 _I
Co-Op Mining Company Trail Canyon Mine C/015/021		X		10				10		10		10		10		10	10

Mountain Coal Company Gordon Creek #3 and #6 C/007/017		X		17.3				17.3		17.3		17.3		17.3		17.3		17.3
Mountain Coal Company Huntington #4 Mine C/015/004		X		12.5				12.5		12.5		12.5		12.5		12.5		12.5
Western States Minerals Corporation J.B. King Mine C/015/002		X		28				28		28		28		^I 28		28		28
Subtotal		5		72				67.8		67.8		67.8		39.8		67.8	10	72
Bond forfeiture sites.																		
Sunnyside Coal Company FOR/007/007		X		287.4				287.4				287.4						
North American Equities Blazon Mine FOR/007/021		X		4.65				4.65				4.65						
Summit Minerals Summit #1 FOR/043/001		X		19				19				19						
Summit Coal Company Boyer Mine FOR/043/008		X		7				7				7						
Subtotal		4		318.05				318.05				318.05						
Total	6	31	12.64	2730.83	2182.35	14.9	4	529.38	29.9	189.75	0	502.3	0	39.8	0	67.8	10	72.01

^ABlanks in the table denote zeros.

^BLong-term mining or reclamation facilities include haul and access roads; temporary dams and impoundments; diversion and collector ditches; water and air monitoring sites; topsoil stockpiles; overburden stockpiles; repair, storage, and construction areas; coal stockpile, loading, and processing areas; railroads; coal conveyors; refuse piles and coal mine waste impoundments; head-of-hollow fills; valley fills; ventilation shafts and entryways; and noncoal waste disposal areas (garbage dumps and coal combustion by-products disposal areas).

^CAdditional 35.49 acres approved for disturbance as a part of the Lila Canyon facilities. However, not yet disturbed.

^DThe mine is in temporary cessation, and the permittee estimated 40 acres of actual disturbance to date. In the permit application package, the permittee has bonded a total of 247 acres for proposed disturbance.

^ENot included in this disturbed acreage total are 93.18 disturbed acres in an access road that was removed from the permit area through the bond release process.

^FChannel Canyon portal breakout reclamation; no phase I and II bond release prior to phase III bond release.

^GAdditional 18.67 acres approved for disturbance. However, not yet disturbed.

^HNot shown is the New-Tech Mine Corporation, New-Tech Mine, which disturbed 3 acres. DOGM permitted the site for exploration but never permitted it for active mining under the Utah permanent regulatory program.

^INo phase I and II bond release prior to phase III bond release.

^JUtah forfeited the bond on November 22, 1996. A Utah-hired contractor completed reclamation in July 1999.

^KUtah forfeited the bond on May 24, 1991. A Utah-hired contractor completed reclamation on October 4, 2000.

^LUtah forfeited the bond on January 26, 1989. A Utah-hired contractor completed reclamation on November 20, 1997.

^MUtah forfeited the bond on June 23, 1989. A Utah-hired contractor completed reclamation on April 17, 1997.

TABLE 7

STATE BOND FORFEITURE ACTIVITY (Permanent Program Permits)		
Bond Forfeiture Reclamation Activity by SRA	Number of Sites	Acres
Sites with bonds forfeited and collected that were unreclaimed as of September 30, 2000 (end of previous evaluation year) ^A	1	4.65
Sites with bonds forfeited and collected during Evaluation Year 2001 (current year)	0	0.00
Sites with bonds forfeited and collected that were re-permitted during Evaluation Year 2001 (current year)	0	0.00
Sites with bonds forfeited and collected that were reclaimed during Evaluation Year 2001 (current year)	1	4.65
Sites with bonds forfeited and collected that were unreclaimed as of September 30, 2001 (end of current year) ^A	0	0.00
Sites with bonds forfeited but uncollected as of September 30, 2001 (end of current year)	0	0.00
Surety/Other Reclamation (In Lieu of Forfeiture)		
Sites being reclaimed by surety/other party as of September 30, 2000 (end of previous evaluation year) ^B	0	0.00
Sites where surety/other party agreed to do reclamation during Evaluation Year 2001 (current year)	0	0.00
Sites being reclaimed by surety/other party that were re-permitted during Evaluation Year 2001 (current year)	0	0.00
Sites with reclamation completed by surety/other party during Evaluation Year 2001 (current year) ^C	0	0.00
Sites being reclaimed by surety/other party as of September 30, 2001 (current evaluation year) ^B	0	0.00
^A Includes data only for those forfeiture sites not fully reclaimed as of this date ^B Includes all sites where surety or other party has agreed to complete reclamation and site is not fully reclaimed as of this date ^C This number also is reported in Table 5 as Phase III bond release has been granted on these sites		

TABLE 8

UTAH STAFFING (Full-time equivalents at the end of evaluation year)	
Function	EY 2001
Regulatory Program	
Permit review	15
Inspection	5.00
Other (administrative, fiscal, personnel, etc.)	3.00
Total	23.00

TABLE 9

FUNDS GRANTED TO UTAH BY OSM (Millions of dollars) EY 2001		
Type of Grant	Federal Funds Awarded	Federal Funding as a Percentage of Total Program Costs
Administration and Enforcement	\$1.76	87
Small Operator Assistance	\$0.00	0
Totals	\$1.76	